



**Healthcare  
Improvement  
Scotland**

# IMPLEMENTING CLINICAL DECISION MAKING TOOLS

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# Clinical decision making tools - purpose

- Implementation of guidance
  - Support safe, effective, person-centred care
  - Improve patient outcomes
  - Reduce variation and waste
- Joint decision making
  - Shared understanding of benefits and risks
- Audit and feedback

# Passive clinical decision support

The screenshot shows the NHS Education for Scotland Clinical Decision Support website. At the top, there is a navigation bar with tabs for Home, Portals and Topics, Communities, Library, Learning and CPD, Keep Up To Date, and Tools and Apps. Below this is a breadcrumb trail: Home > Tools and Apps > Mobile Knowledge > Clinical Decision Support.

The main content area is divided into several sections:

- Mobile Knowledge**: A sidebar menu with links to Point of Care, Guidelines, Journals, eBooks, General Practice, Pharmacy, Anatomy, Nurses, Midwives and AHPs, and Health improvement/patient information.
- Clinical Decision Support**: The main heading, with a sub-heading "NHS Education for Scotland". Below this is a description: "The Clinical Decision Support service is a dedicated point of care search to aid clinical decision making. This search is optimised for use on mobile devices. Sources include DynaMed, TRIP Questions and Answers, National Guideline Clearinghouse and EBSCO".
- Access Method**: "Available via The Knowledge Network".
- Authentication**: A section for user authentication.
- Access Resource**: A prominent blue button.
- Filter by device**: A dropdown menu set to "All" and a search box.
- Other resources from this provider**: A list of related resources, including "CLEAR - mobile NHS Education for Scotland", "Delirium NHS Education for Scotland", and "Effective practitioner - And... NHS Education for Scotland".

At the bottom right, there is a "See All >" link.

# Stand alone - mobile applications

**Home**  
Guidelines  
Consultation  
Patient Involvement  
Methodology  
Search  
About SIGN

New on the site

28 May 2008  
[Management of invasive meningococcal disease in children and young people](#)

6 May 2008  
[Publication of revised edition of British Guideline on the Management of Asthma](#)

21 April 2008  
[Join a SIGN Guideline Group information](#)

16 April 2008  
[May 2008 Patient Newsletter added](#)

15 April 2008  
[Critical appraisal course dates added](#)

20 February 2008  
[February 2008 Patient Newsletter added more](#)

**Management of invasive meningococcal disease in children and young people**  
*Now in print and on line*

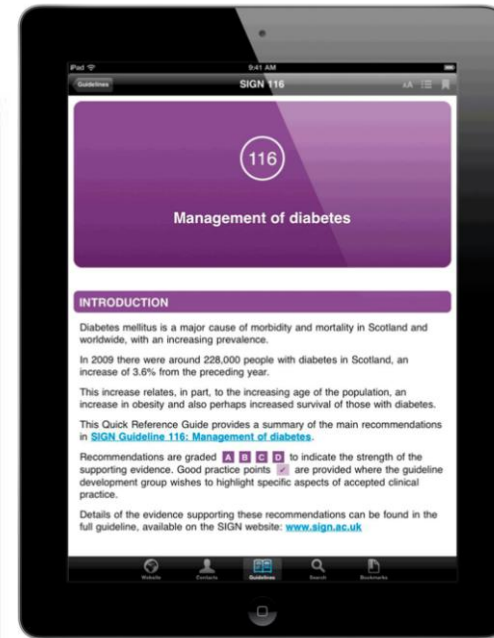
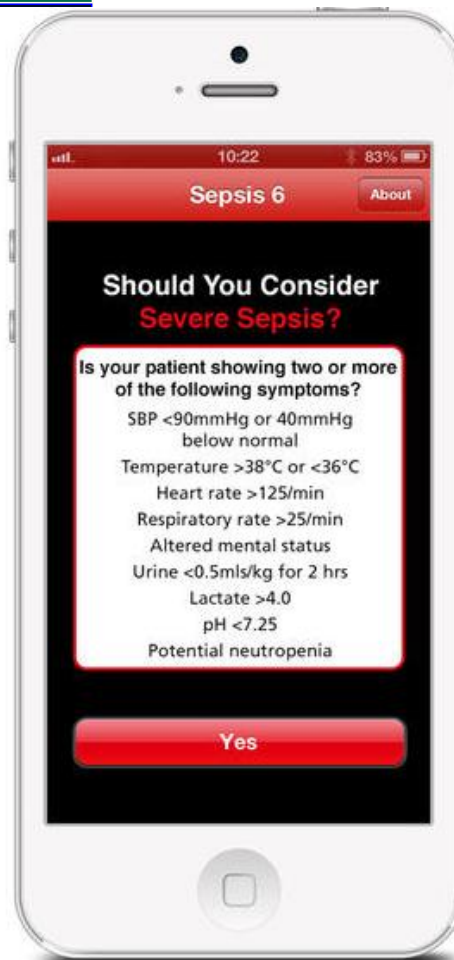
Invasive Meningococcal Disease (IMD) is a significant cause of morbidity and mortality in children and young people, caused by infection with the bacterium *Neisseria meningitidis*. The introduction of the Men C vaccine in 1999 reduced the disease incidence by approximately 50%, and IMD due to group C infection is now very rare.

Despite this success, the youngest members of our society continue to bear a disproportionate burden in terms of incidence of, and mortality from, IMD. The most common clinical manifestation of invasive disease is meningitis, but up to 20% of patients will develop meningococcal septicæmia, associated with the highest mortality. The majority of deaths continue to occur in the first 24 hours, frequently before the institution of specialised care. The recorded case fatality rate for meningococcal disease varies between 2.6-10% each year.

**WHY WE NEED A GUIDELINE**

The persistent mortality associated with the early hours of rapidly progressive septicæmia, emphasises the need for:

Sign up to SIGN. Let



# Mobile applications - quality assurance

**NHS choices** health apps library Share ▾







Conditions ▾ Healthy living ▾ Health information ▾ Social care Developers About

**Safe and trusted** apps to help you manage your health

Welcome to the Health Apps Library

- Discover apps to help you manage your health
- Reviewed by the NHS to ensure they are clinically safe
- Rated by you and the health care community


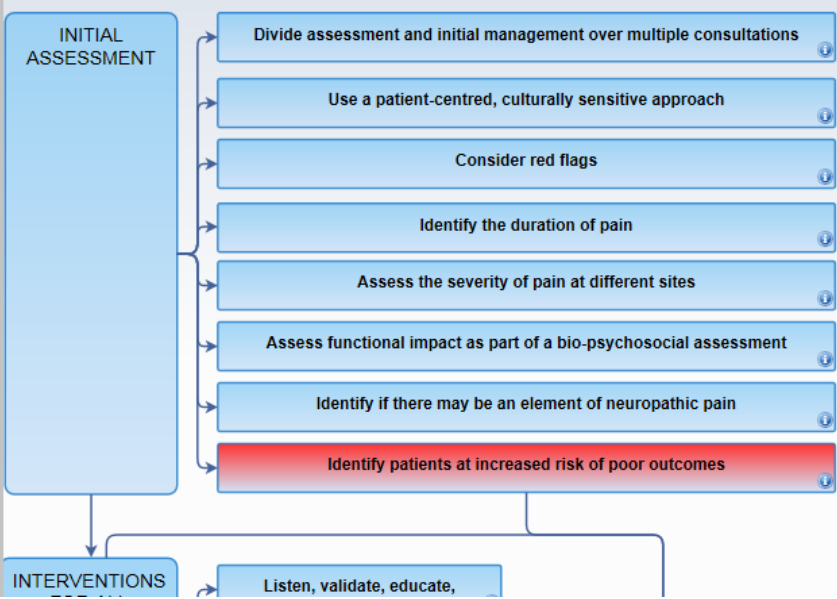
Latest apps

 <p><b>Mind Tyneside</b> Manage your health ★★★★★ Free Apple Android</p>	 <p><b>Harmony Mood T...</b> Manage your health Not yet rated Free Apple</p>	 <p><b>Fallcheck</b> General ★ Free Apple Android Windows Phone</p>	 <p><b>Hands Up Therapy</b> Manage your health Not yet rated Paid Apple</p>	 <p><b>My Neonatal Jo...</b> Pregnancy Not yet rated Paid Apple</p>	 <p><b>Foodmeter</b> Food &amp; diet ★★★★★ In app purchases Apple Android</p>
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# Stand alone - patient pathways

SIGN 136: CHRONIC PAIN ASSESSMENT, EARLY MANAGEMENT AND CARE PLANNING IN NON-SPECIALIST SETTINGS

**SIGN 136 • Management of chronic pain**  
 Pathway for chronic pain assessment, early management and care planning in non-specialist settings

**INFORMATION**

- Use clinical judgement.
- Consider the use of evidence based tools (eg Keele STarT Back Tool).
- Be aware of the presence of significant comorbidities.  
*Mental health problems (including depression, anxiety, personality disorder, post-traumatic stress disorder), cognitive impairment, substance misuse, pregnancy, polypharmacy, significant renal or hepatic impairment*
- Be aware of the presence of yellow flags.

Biomedical yellow flags	Severe pain or increased disability at presentation, previous significant pain episode, multiple site pain, non-organic signs, iatrogenic factors.
Psychological yellow flags	Belief that pain indicates harm, an expectation that passive rather than active treatments are most helpful, fear avoidance behaviour, catastrophic thinking, poor problem solving ability, passive coping strategies, atypical health beliefs, psychosomatic perceptions, high levels of distress.
Social yellow flags	Low expectation of return to work, lack of confidence in performing work activities, heavy work, low levels of control over rate of work, poor work relationships, social dysfunction, medico-legal issues.

# Patient pathways - quality assessment



**GIRAnet**  
Guideline Implementability Research and Application Network

**Gtool Directory**  
Guideline Implementability Tool Directory

Home Search Gtools Browse Gtools Submit Gtool Domains & Elements Criteria Contact

The Guideline Implementability Research and Application Network ([GIRAnet](#)) links guideline developers, implementers, and researchers to identify, develop, evaluate and share guideline implementability tools (Gtools). Implementability refers to characteristics of guidelines that enhance their implementation by users. Gtools provide users with context-specific advice or instruments to identify barriers, implement guidelines, assess costs, engage patients or evaluate guideline-related performance.

The Gtool Directory can be [searched](#) or [browsed](#) to identify and access Gtools. It features a sample of Gtools that were assembled by searching guidelines and a variety of other sources. Each Gtool record includes a link, basic description, and assessment based on [criteria](#) that were established through consultation with the international guideline community. The guideline community can contribute to this resource by submitting information about a Gtool that they or others developed.

**Quick Gtool Search | [Advanced Search](#)**

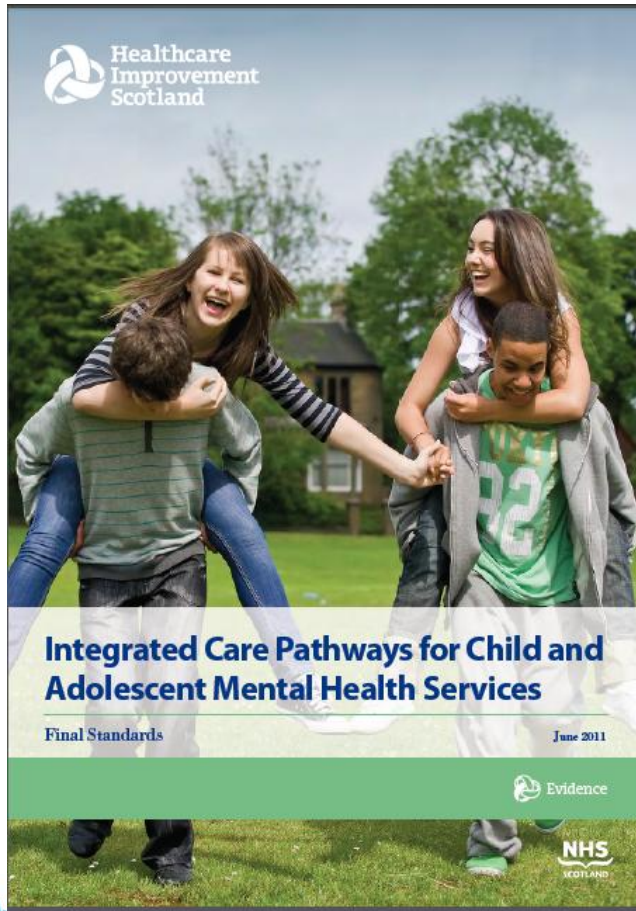
enter terms here

**Submit Gtool**

[Click here to submit](#)



# Standards for Pathway Development



- Process standards
  - Eg. Stakeholder engagement
- Generic standards
  - Eg. Diagnosis is recorded
- Service improvement standards
  - Eg. Data review leads to practice change



# Shared decision making

Home The Option Grids About My Account Log Out Language: U.S. English

< Option Grids / Crohn's disease: medication options

## Option Grid: Crohn's disease: medication options

Use this grid to help you and your healthcare professional talk about how best to treat Crohn's disease. Ask your healthcare provider if there are other treatment options available to you.

Editors:  
Glyn Elwyn, Courtney Kozlowski

Take an  
interactive journey

Use this interactive tool to explore the treatment options and to help you make a decision.



### Crohn's disease: medication options

Use this grid to help you and your healthcare professional talk about how best to treat Crohn's disease. Ask your healthcare provider if there are other treatment options available to you.

FAQs ↓	Immunomodulator Azathioprine (Imuran, Azasan); 6-mercaptopurine (6MP); Methotrexate	Anti-TNF Infliximab (Remicade); Adalimumab (Humira); Certolizumab pegol (Cimzia)	Combination Therapy
<b>What type of medication is this?</b> Your importance rating: 1 2 3	An immunomodulator is a medicine that is taken to dampen the body's immune system in order to reduce inflammation in the bowel. This type of medication has been used for over 30 years.	This medication blocks the ability of a tumor necrosis factor (TNF) to cause inflammation, which can damage the bowel. This type of medication has been used for over 15 years.	Using an immunomodulator and an anti-TNF drug together.
<b>How is this treatment administered?</b> Your importance rating: 1 2 3 4 5	Daily, as a pill. It may take 1-2 months to have an effect so you might also use a steroid, such as prednisone, for a few weeks to a few months.	Remicade is injected into a vein every other month. Humira or Cimzia are given as a shot under the skin every 1 to 4 weeks.	Daily, as a pill, plus either IV (into the vein) treatments every other month or shots every 1-4 weeks.
<b>How many people get relief and can stay off steroids?</b> Your importance rating: 1 2 3	Approximately 30 in every 100 people (30%) who take this treatment can stop their steroids.	Approximately 40 in every 100 people (40%) who take this treatment do not need to use steroids.	Approximately 60 in every 100 people (60%) who take this combined treatment do not need to use steroids.
<b>How many people have complete healing of the ulcers in their intestine?</b> Your importance rating: 1 2 3 4	Approximately 20 in every 100 people (20%) on treatment	Approximately 30 in every 100 people (30%) on treatment	Approximately 40 in every 100 people (40%) on combined treatment
<b>What are some common, but short-term side effects?</b> Your importance rating: 1 2 3	Approximately 3 in every 100 people (3%) develop pancreatitis, where the pancreas becomes painful and damaged. Other short-term side effects may include infections like sinusitis or bronchitis.	Allergic reactions that may include a rash, fever, or shortness of breath occur in approximately 5 in every 100 people (5%) receiving treatment.	Frequency of pancreatitis and infections are the same during combination therapy as when taken individually. Allergic reactions to anti-TNFs may occur less often with combination therapy.
<b>How many people stop taking the medication because of side effects?</b> Your importance rating: 1 2 3	Approximately 10 in every 100 people (10%)	Approximately 10 in every 100 people (10%)	Approximately 10 in every 100 people (10%)

# Context sensitive Clinical Decision Support

- Electronic patient record
- Comparison of patient record with guidelines
- Where treatment failing – alternatives on pathway
- Identifies where referrals appropriate
- Supports virtual consultation
- Records actions back into patient record



# Discussion

- What is possible for rare diseases?
- What is feasible for networks?
- Where can resources come from?
- Who is best placed to lead?
- How can this work be progressed?